November 20, 2009

Ms. Mary Nichols, Chairman
Mr. James Goldstene, Executive Officer
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Renewable Energy Marketers Association Comments on RES Concept Outline

Dear Chairman Nichols and Executive Officer Goldstene:

The Renewable Energy Marketers Association (REMA) is pleased to offer these comments on the RES Proposed Concept Outline. Specifically, we address the following key issues:

- The use of unbundled RECs;
- The additionality of voluntary demand to the RES requirements;
- Interaction with the federal RES;
- The appropriate metric for tracking RES compliance and progress; and
- Ownership of RECs from small customer-sited distributed generation.

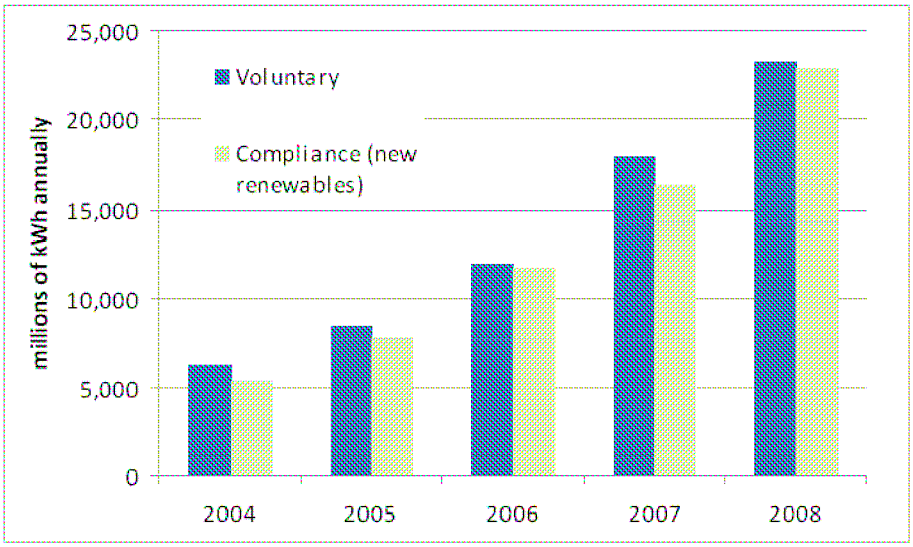
REMA represents the collective interests of both for-profit and nonprofit organizations that sell or promote renewable energy products through voluntary markets, including renewable electricity, renewable energy certificates (RECs), and on-site solar PV to individuals, companies and institutions throughout North America.

According to the National Renewable Energy Laboratory (NREL), there are currently 85 marketers actively selling to small and large customers, and 17 environmental brokers that facilitate REC transactions between buyers and sellers across the U.S. These providers are in addition to utilities that sell renewable electricity differentiated from standard electricity. Presently, there are ten utility green pricing programs within the state of California.[1] Of these programs, five rank in the Top 10 for one or more categories

[1] These are Anaheim Public Utilities, Burbank Water and Power, Los Angeles Department of Water and Power, PacifiCorp (Pacific Power), Palo Alto Utilities, Pasadena Water & Power, Roseville Electric, Sacramento Municipal Utility District, Silicon Valley Power and Truckee Donner PUD.

nationwide according to NREL. There are also thousands of photovoltaic (PV) providers in the U.S. who sell PV systems and associated RECs directly to end-use customers.

The market for green power (renewable electricity and RECs sold independently of electricity) is strong and growing. In 2008, U.S. consumers made voluntary purchases of renewable energy totaling about 24.3 million MWh.[2] For market credibility reasons, voluntary demand is served almost exclusively by new renewables, meaning renewable generation that began commercial operation since the beginning of 1997. A comparison of voluntary demand to state RPS demand shows that in recent years, voluntary demand has slightly exceeded compliance demand for new renewables, as shown in Figure 2.



Note: Compliance market data sourced from Lawrence Berkeley National Laboratory (LBNL) (Barbose 2009)

Figure 2. Comparison of voluntary and compliance markets for renewable energy, 2004-2008

Source: National Renewable Energy Laboratory, Green Power Markets in the United States: A Status Report (2008 Data). September 2009.

Further, voluntary purchases of renewable energy have grown at an average annual rate of 41% since 2004.[3] If the voluntary market continues to grow at the same rate, it will reach about 48 million MWh by 2010, resulting in a reduction of 37.4 million metric tons of CO2.[4] These data demonstrate that the voluntary market for renewable energy is larger than most people recognize.

With the significance of this market firmly in mind, we turn to our specific comments on the Concept Outline.

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[2] L. Bird, C. Kreycik and B. Friedman. Green Power Marketing in the United States: A Status Report (2008 Data). NREL/TP-6A2-46581. Golden, Colorado: National Renewable Energy Laboratory. September 2009.
[3] Bird et al., op. cit.
[4] Based on EPA's eGRID data for the national average CO2 emissions resulting from electric generation (0.78 metric tons/MWh). See http://epa.gov/cleanenergy/energy-resources/egrid/index.html.

1. REMA strongly supports eligibility of unbundled RECs.

The proposed Concept Outline states at 2.d that REC-only transactions would be eligible to satisfy the RES "provided the RECs were tracked by the Western Renewable Energy Generation Information System (WREGIS) and the regulated party could demonstrate that the REC attribute, and its GHG emission reduction attributes, were not used towards other renewable generation or GHG reduction program requirements." We strongly support this proposal because unbundled RECs provide significantly more flexibility compared to a requirement to acquire bundled renewable electricity in real time to follow load.

Staff requested feedback on the potential impact of changing the eligibility, delivery and environmental conditions currently applied to imported power. By restricting eligible output to that which can be delivered into California, current rules limit market choices and tend to prop up local renewable prices. There is no question that this is good for local renewable generation, but it is a cost borne by California ratepayers. Compliance costs are also increased for out-of-state resources because their costs are increased by requiring transmission and scheduling of the resources into California.

The proposals in the Concept Outline would enlarge this market. Coupled with the proposed geographic eligibility of 2.c that in-state and out-of-state facilities connected to WECC would be eligible for the RES, the proposal for unbundled RECs will lead to more competition, lower compliance costs, greater market liquidity and overall stronger markets. This is good for California ratepayers as well as for the voluntary market for renewable electricity and RECs.

2. To prevent double-counting, voluntary purchases by end-use customers of renewable electricity or RECs should not be counted towards RES compliance.

To encourage the voluntary market, nearly all of the state RPS rules expressly prohibit counting voluntary demand against the state RPS requirement. California is no exception.

California RPS rules already prohibit counting of voluntary sales towards meeting compliance targets, but this point is so absolutely essential to the continued functioning of the voluntary market that we emphasize it here.

California Public Utilities Code (Section 399.16) states, "(2) A renewable energy credit shall be counted only once for compliance with the renewables portfolio standard of this state or any other state, or for verifying retail product claims in this state or any other state."

"Retail product claims" refers to renewable energy products marketed to voluntary markets. The California RES should create a floor, not a ceiling, for renewable energy demand. Customers are motivated to buy (and usually pay more for) environmentally preferred products, but need to be assured that their purchase will make a difference. If voluntary purchases were to be counted for compliance with a mandatory RES, then customers would no longer be willing to pay for something they would get anyway as a result of the mandate. This is a matter of consumer protection as well as support for levels of renewable energy above and beyond mandated levels.

ARB should be equally clear that the greenhouse gas reduction benefits of voluntary demand for renewable energy is not to be counted towards the emission reductions attributed to the RES. Again, end-use customers will not voluntarily pay for emission reductions that must be achieved anyway as a result of regulation. If these voluntarily created reductions were to be counted towards the mandatory reductions, such regulations would remove all customer incentive by establishing a maximum amount of reductions instead of a minimum amount that allows non-obligated parties (customers) to voluntarily go above and beyond what is required by the RES.

Concerns have been expressed that if California raises its RPS to 33%, there will not be enough renewable energy to satisfy both the RPS and voluntary demand. This is a static view that does not take into account the longer term dynamics of supply and demand. A study undertaken by the National Renewable Energy Laboratory (NREL) found that the combined demand of 25 states with an RPS and national voluntary market demand for green power creates a near-term deficit in supply, but that the "results do not necessarily portend a long-term shortage as it is likely that, with continuing Federal and state support, the renewable energy industry can greatly ramp up deployment and production over the medium and long term."[5] Such an increase in renewable energy supply is the goal of both RPS standards and the voluntary market.

In California, a shortfall of supply relative to demand would lead to higher prices, which may dampen voluntary demand temporarily, but the RES would not jump to 33% overnight. Similar to the NREL conclusion, supply can be expected to respond to higher prices. If state policy is to increase renewable resources, it does not make sense to jettison the voluntary market—that would be a zero-sum game.

3. In relation to a federal RES, the ARB should ensure that a federal REC is retired for every non-federal REC used to satisfy California's RES or to supply a voluntary renewable energy product.

It is widely understood that when a federal and state RES co-exist, the general approach is to allow RECs used for compliance with a state RES to count towards the federal RES.

It is also a general principle in the federal RES bills to allow states to adopt more stringent state RES programs. REMA supports this principle. Care must be taken, however, to ensure that the right is not undermined by the use of federal RECs that are not needed for compliance with a state RPS. For example, consider a state with a 33% RES and a federal RPS of 20%. Obligated entities that have met the 33% state target and have "over complied" with the 20% federal target may decide to sell their "surplus" federal RECs to obligated entities in other states for federal compliance. This effectively lowers the state RES from 33% to 20% and undercuts the intent of the state to create more renewable energy.

To effectuate California's intent to adopt a more stringent RES standard than is contemplated in any of the federal bills, we urge the ARB to ensure that a Federal REC is retired for every non-federal REC used to satisfy California's RES, or to supply a voluntary renewable energy product or program in California.

[5] Swezey, Blair, Jorn Aabakken, and Lori Bird, *A Preliminary Examination of the Supply and Demand Balance for Renewable Electricity*. NREL/TP-670-42096, October 2007.

4. Measurement and tracking of progress should be based on MWh, not CO2.

We understand that ARB staff is evaluating various metric options to implement and monitor compliance with the RES. Although converting MWh to greenhouse gas reductions (tons of CO2 or carbon equivalent) would create a metric with which ARB staff is more familiar, and is related to the goals of AB 32, we can see no other advantage, and several disadvantages, to this approach.

The 20% RPS is already measured in MWh, as are all other state RPSs. Adopting a different metric will make it more difficult to compare and aggregate renewable energy progress.

There is no real benefit to inserting an additional step. If the metric adopted is CO2, it is still fundamentally based on MWh, whether a simplified standard conversion factor is adopted or unique calculations for conversion are required.

Staff can make the conversion (or it can be automated) if ARB needs to report RES progress in emissions units. If the conversion has to be based on information about the generating unit, that information is part of each REC (and RECs are required from WREGIS whether it is bundled with electricity or acquired through an unbundled transaction).

It makes it more difficult to unwind the data to MWh if the fundamental building blocks for the calculation (MWh) are not reported.

Creating a RES compliance credit distinct from a REC, as suggested, could lead to double-counting unless the RES compliance credit is defined identically to California's definition of a REC, including all the attributes, etc. Even so, with two different commodities, the possibility of trading them separately must be addressed to avoid destroying the market for both.

Prescribed GHG emission factors may vary from emission factors used to estimate emission reduction for other purposes. For example, for several of its programs EPA recommends using non-baseload emission factors for the NERC subregion in which the generator is located. The same generation could be attributed different emission reductions.

In support of using MWh to track RES compliance, we agree with the comments of the Energy Commission contained in Attachment 1.

5. All RECs should initially belong to the generators that created them.

It is a general principle of RPS programs that generators that create RECs by producing electricity have a right to those RECs and may decide how to dispose of them. For example, they may decide to sell the RECs or retain them to support environmental claims. This is true for small generators, such as rooftop solar PV projects, as well as for larger utility-scale generators. We raise this point because we have heard that ARB is considering counting rooftop solar RECs towards the RES targets. REMA strongly opposes this idea.

In 2007, after a lengthy proceeding, the CPUC enshrined this principle in Decision 07-01-08, which ordered, "Owners of Renewable Distributed Generation facilities shall own

all of the Renewable Energy Credits produced by their facilities."[6] In reaching this decision, the CPUC found that:

> 7. Even if RECs have zero value from a resale perspective, they may be fundamental to making decisions to install renewables because they may enable customers to make green claims as defined in this decision.
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> 8. If DG system owners transfer their RECs, they would not be able to legitimately make green claims.
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> 11. Transferring RECs from renewable DG system owners to ratepayers could adversely impact decisions to invest in solar and other renewable DG projects.
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> 12. Allowing solar DG system owners to retain the RECs produced by their facilities is consistent with the long-term goal of making the solar industry self-sufficient.
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> 14. Transferring the RECs to ratepayers as a condition of receiving ratepayer incentives, whether under the CSI or the SGIP, would run afoul of the policy articulated in D.02-10-062 to encourage the installation of renewable DG facilities.
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> 15. If renewable DG system owners retain the RECs, then, system owners would have the option of selling their RECs into the compliance market, thereby enhancing the economics of renewable DG, if and when the Commission adopts an unbundled REC regime for RPS compliance.
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> 16. Transferring the RECs from renewable DG systems to the ratepayers as a condition of receiving ratepayer incentives would not encourage renewable DG installation.
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> 22. Because system owners retain 100% of their RECs according to this decision, utilities will not be able to count the output of ratepayer supported renewable DG facilities in their RPS calculations at this time.

As a conclusion of law, the CPUC concluded that "The Commission should allow all renewable DG system owners to retain the RECs produced by their facilities irrespective of whether or not they receive ratepayer funding from programs such as CSI, SGIP, or net metering."

We believe the CPUC was right about this. If ARB were to count the output of these small, customer-sited renewable energy generators, it would either double count the RECs that the customer is claiming or selling, or if ARB were to claim the RECs, it would seriously undermine customer willingness to undertake such projects. It would also be in conflict with existing state public policy. If ARB were to claim the RECs, either explicitly or tacitly by counting them towards the RES, we believe it would constitute a regulatory "taking" of a valuable commodity without consideration. For these reasons we urge that ARB not consider this idea further.

[6] California Public Utilities Commission, Rulemaking 06-03-004, Order Instituting Rulemaking Regarding Policies, Procedures and Rules for California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues. Opinion Adopting Methods to Determine the Renewable Energy Credits from Renewable Distributed Generation. Decision 07-01-018, January 11, 2007.

That concludes our comments for now. We will continue to watch the development of the RES with great interest. Thank you for the opportunity to comment.

Thank you for the opportunity to submit these comments.

Respectfully Submitted,

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